

FIG 1A

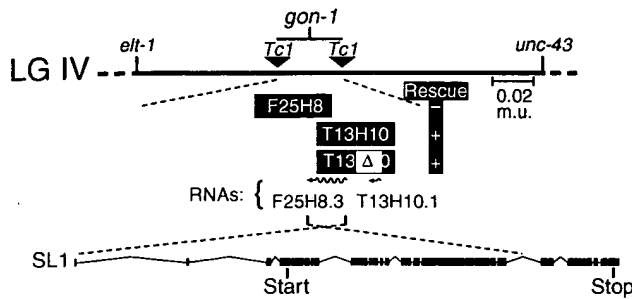


FIG 1B Domains: MP TSPT1 TSPT1-like

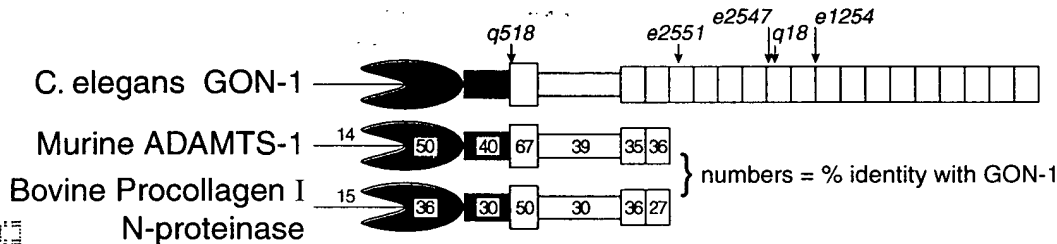


FIG 1C

	signal sequence	
GON-1	MRSIGGSFHLQPVVAALILVVCLVYALQSGSGTISEFSSDVLFSRAKYSVGVVHHSRWQDAGIHIDSHHIVRRDSYGRGKR....DVTSTDRRRRLQGVARDGCHACHLRISDDAVY	119
ADAMTS-1	MGDVORAARSRGSLAHMLLLLASITMLLCARGA.....HGRPTDEEELV.....PSLERAPGH....DSTTT..RLRLDAF....GQOLHLKLQPSDG.F	83
P1NP	MDPPAGAAGRL.LCPALLLLLLPLPADARLAAAAADPPGGPQGHGAERILAVPVRTDAQGRVLSHVISAATAPAGVTRRAAPAQIPGLSGGSEEDPGGLFYNNVTFGRDLHLRLP.NARL	122
GON-1	IVHLHRWNQIPDSHNKSVPHFSNSNFAPMVLVLDSEEEVRGMSRTDPDC.IYRAHYKVGHQHSIVNLCDSEDLGYMLALPSGIHTVEPIISGNGTEHDGASRHRQHLVRKFDPMHFKSFDHL	242
ADAMTS-1	LAPGFTLOTVGRSGSEAQHLDPDGLAHCFYSGTVNGDPGSA.ALSLCEGVGAFYLOGEEFFIQAPGVATERLAPAVPEEASSARPOFHILRRRRRGSGGAKCG.VMDETLPTSDSRPE	205
P1NP	VAPGATVEWQGESGATRVEPL....LGTCLVGVGVAGLAESSVALSNCDGLAGLIRMEEEFFIEPL....EKGLAAKEAEOGRVHVYHPTTSRPPPLGGPOAL....DTGISADSLDS	232
GON-1	NSTSVNETETTATWQDQWEDVIERKARSRAANSWDHYVEVLVVDTKMYEYHGHS.LEDYVTLFSTVASIYRHOSLRASINVVVVKLIVLKTENAGPRI.TONAAQTLQDFRMOQYYNDP	364
ADAMTS-1	SONTRNQWVRDPTPDAGKPSGPGSIRKKRFVSS.PRYVETMLVADQSMADFHGSG.LKHVLLTLFSVAARFYKHPISIRNSISLVVVKILVIYEEQKGEV.TSMAALTLRNFCSDQKQHNSP	326
P1NP	LSRALGVLE.....ERVNSSRRMRHAADDDYNIIVLLGVDDSVVQFHGTEHYQKYLLTLMNIVNEIYHDESAGAHNVVLRILLSSYGKMSMLIEIGNPSQSLNENVRWAYLOQK	346
GON-1	DDSSVQHHDVATLLTRKIDICRSQKCDTLGLAELGTMDMOKSCAIEDNGLSAFTIAHE.GHVFSIPHODERKCYSTYMPNKNFHIHAPTLEYNTHPSWSPCSAGMLERFIENNRGOTG	488
ADAMTS-1	SDRDPEHYDTAILFTRDQLCGSH.TCDTLGADVGTVQPSRSCSVIEDDGLQAFTTAAHE.GHVFNMPHDDAKHCASLNGVSGDS.HLMASMLSSLDHSPWSPCSAYMVSFLDNHG..EC	446
P1NP	DTDDEYHDHAFILTRDF....GPSGMQBYAPVTGMCHPVRSCTENHEDGSSAFVVAHEIGHVLMGMEHQG...GNRCGDEVRLGSIAPLVQAAFFRFHWRCSQOELSRVHS....YDC	459
GON-1	LFDPQVERRYIEDVFRDEPGKKYDAHQOQKVFVCPASELCP.YMP..TCRRLLWCATFYGSOMGRTQHMFMADGTPCDESRSMFCHHBAGVRLA..PESLTKIDGONGDWRSHGECSTRCCGG	607
ADAMTS-1	LMKPKQN....PIKLPSDLPGTLVDANROCFITGEEESKHPDAAS..TCITLLWCTGSGLLVQOTKHFMADGTSCEGK..WCVSGKCVNKTDMKHFAIPVHGSWGPWGPMDGCSRTCCGG	562
P1NP	LRDDPFTHDWA...LPOLPGLHYSMNEQGRDFGLGYMCTAFRTDFPCQLNCSHPDNPFY..CKTKGKPLDGTMCAPGKH..CFKGHCILWLP...DILKRDENWGAWSPFSCSRTCCGTG	574
GON-1	VOKGLRDCISPKPRNGGKYCVGQERYRSNTQECPWD.TOPYREVQCSEFNNDIGIOGVASTNTHVMPKYANVAPNERCLYQRLSGSAAFYLLRDKVVDGTPCD.RNGDDICVAGACMPAG	729
ADAMTS-1	VQYTMRECDNPVPKNGGKYCEGKRVYRSCNIEDCPNNNGKTFREDCQEAHNEFSKASFGNEPT.VENIPKYAGVSPKDRCLTICEAKGIGYFFVLPQKVVDGTPCS.PDSTSVCVGOCVYKAG	684
P1NP	VKFRTRCDNPHBANGGRTCSGLAYDFOLCNSQDCP.DALADFREDCQROWDLY...FEHGOAHHWLP.HEHRDAKERCLYCESKETGEVVSMMKRMV.DGTGCSYKDAFSLCVRGDRKVG	692
GON-1	CDHQLHSTLRRQKCGVCGGDDSSCKVVKGTFN.EQGTFGYNEVMKIPAGSANIDIROKGYNNMKEDDNYLSLRAANBEFLNGHFQVSLARQOIAFDQTVLEYSGSDAIIERINGTGRIRSDIY	852
ADAMTS-1	CDRIIDSXKKFDKCGVCGGNESTCKKMSGLVT.STRP.GYHDIVTIPAGATNIEVKHNRNORGSRRNGSLAIRAADSTYILNGNFTLSTLEODLYKGTVLRYSGSSAALERIRSFSLKEPLT	806
P1NP	CDGVIKSKQEDKCGVCGGDNSHCKVVKGTFSRSPKKLGYTKMFEIPAGARHLIQEAD...TSSHHLAVKNLETGKFIENENDVPNSKTFIAMGVWEVYRDEGR.ETLOTMGLHGTIT	811
GON-1	VHVLSVG.SHPDDISYEYMTAAVNAVIRPISS...AL.YLVRVTDITIEORAC.RGQOSQKLMCLDMSTHRQSHDRNCONVLKPKQATRM.CNI.DCS.TRITTEDVSSCSAKCGS.GOKRO	966
ADAMTS-1	IOVLMVGHALRPKIKFTVMKKKTESF...NAI...PTFSEH.VIEEMGECKTGGSGHVRVVOGRDINGHPAS...ECAKEVKPA.STRP.CADLPCL.PHIOVGWSPSCSKTGGK.GYKKR	915
P1NP	VLVIPEQDA.RISLTYKMIHEDSLNVDDNNVLEDDSVGEVY.ALKKNWSPCKPCGGGSGTKYGCRRRLDHKMVHRGFCDSVSKP.AIRRTCNPOECSPVNVWTEWEPCSRSCGRTEQVR	932
GON-1	RVSCVMEGDRQT.PASEHLCDRNSKPSD.IASCYI.DC	plus 1148 aa
ADAMTS-1	TLKCVSHDGG...VLSNESCDPLKKPKHYIDFCTLTQC	plus 1 aa
P1NP	SVRCVPLHNNTTRSVTKHGN.DARFEGR.RACNREL	plus 236 aa

## A. Wild-type gonadogenesis

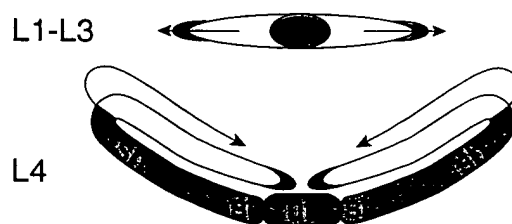


FIG 2A

B. *gon-1* required for gonad morphogenesis

FIG 2B

Key: ■ somatic gonad □ germ line ➤ DTC